ANACONDA Copper Company
New Mexico Operations
P.O. Box 638
Grants, New Mexico 87020
505/876-2211

August 14, 1980

Mr. Edward T. Sandell, Jr.
Acting Deputy Conservation
Manager - Mining
Conservation Division
U. S. Geological Survey
P. O. Box 26124
Albuquerque, New Mexico 87125

Dear Mr. Sandell:

Anaconda Copper Company hereby submits for your approval the mining and reclamation plans for the NJ-45 Mine underground mining project on the Laguna Reservation. NJ-45 is wholly contained within the limits of the present surface disturbance of the open pit and will impact no new undisturbed ground surface areas.

This submittal is made in accordance with the applicable federal codes, rules, and regulations, and was prepared by reference to Requirements for Exploration, Mining and Reclamation Plans, Exhibit 4, 623.5.3B.

This project was originally planned to be an open pit development, but increasing operating costs and reduced uranium prices have made open pit mining in this area uneconomic, and the ore is now planned to be mined by conventional underground methods.

Development work for the NJ-45 Mine is planned to begin from the present open pit workings on January 1, 1981, dependent upon approval. This early starting time is necessary to maintain the supply of ore previously expected from open pit operations, and to compensate for declining production from the PW-2/3 and the P-10 Mines. The PW-2/3 Mine may cease operations in September, 1980. Production from the P-10 Mine is expected to be reduced by about half by January, 1981, and to subsequently decline to exhaustion at about the end of 1981 or early 1982. This assumes that there will be no new mineral discovery in these mines or that any other unforeseen event will occur.

All surface and underground activities associated with the NJ-45 Mine project will be wholly contained within the present surface crest stripping limits of the open pit mine. Open pit mining activities in the area will have ceased at the time NJ-45 is begun. Reclamation of the NJ-45 area, other than plugging the adit portals and the vent holes, will be accomplished by the open pit reclamation operations for which a comprehensive plan is now being formulated by Anaconda in conjunction with the U. S. Geological Survey, the Pueblo of Laguna, and other interested parties.

Accompanying this submttal is a map "Proposed NJ-45 Mine Plan" dated July 11, 1980, showing the present surface crest line limits of the open pit, the portals in the open pit, track haulage drifts, vent holes, and proposed stopes. Lenses of non-economic mineralization that are not scheduled for mining but which will be targets for underground examination are also shown.

The NJ-45 Mine will be contained within Anaconda's "Jackpile Mining Lease" on the Laguna Reservation, in Sections 26 and 35, Township 11 North, Range 5 West, New Mexico Prime Meridian, Valencia County, New Mexico. The lessee is represented by R. D. Lynn, General Manager, New Mexico Operations, Anaconda Copper Company, Box 638, Grants, New Mexico, telephone (505)876-2211. The lessor is the Pueblo of Laguna, P. O. Box 194, Laguna, New Mexico, 87026, telephone (505) 552-5651.

Anaconda Copper Company will comply with all applicable federal and state laws and regulations governing the NJ-45 mining operations conducted on the Jackpile Lease of the Laguna Indian Reservation.

Anaconda requests that the confidentiality of proprietary status be granted to those parts of this document which are marked by stamp: "Anaconda Confidential."

Description of Existing Area

The NJ-45 Mine will develop and mine uranium ores in the east wall of the North Jackpile open pit mine workings. Commerical mineralization occurs as random, irregular, lens-shaped concentrations of uranium minerals that are roughly conformable to bedding structures in the host Jackpile sandstone of Jurassic age.

The Jackpile sandstone is overlain by the Dakota and Mancos formations of Cretaceous age, which have been eroded to mesa topography typical of the San Juan Basin. Tne NJ-45 workings will be at an average depth of 210 feet from the surface, ranging from 35 to 320 feet.

Surface water in the vicinity of the NJ-45 workings consists of transient seasonal runoff resulting from precipitation that is captured by the open pit workings. Ground water is contained principally in the Jackpile sandstone.

The above-ground facilities that are planned to be installed near the NJ-45 portal in the open pit will consist of temporary office and repair shelters, and three drilled vent holes. These vents will be located on open pit mine stripping benches on surfaces that are already impacted by mining activities. All known archaeological sites that would have been impacted by these vents have been removed during open pit stripping activities. Access to the vents will be by the present system of roads.

Proposed Mining Activity

The NJ-45 Mine contains an ore reserve that is estimated from surface drilling to weigh 251,000 tons. The first ore production is planned when development first starts, when Adit 3 collars in ore in the pit wall, and the total production life is planned to be 24 months at an average rate of production of 125 thousand tons of ore per year. These data are estimates, and the actual results of production over the life of the project may vary due to future unforeseen operating and economic conditions.

Tne NJ-45 ore will be mined by conventional trackless underground methods. Development work will require about 5,000 feet of access drift consisting of adits and crosscuts. Development work during the life of the project is expected to produce 31,000 tons of waste.

Four adits will be collared in the open pit and driven up grade to the limits of the ore. Mining will be done on a retreat basis at the haulage level. Ore and waste will be slushed to the haulage drift by 3-drum, 30-horsepower slushers, loaded with 2-yard loaders into 5-ton Getman trucks and transported to the surface.

All development and production work in the NJ-45 Mine project will be done by conventional methods, utilizing the same types of equipment used and proven to be successful in the P-10/7 Mine. Rock breakage for excavation will be done by conventional drill and blast methods.

Ground support will be maintained by conventional rock bolts (split sets), wire netting, steel and/or timber sets and stulls, cribbing, and pillars left in place at selected locations. Ventilation of the mine will be through the four haulage adit portals, supplemented by three vent holes. If additional ventilation is needed a southwest-heading crosscut from Adit 2 will be extended to breakthrough to the surface of the open pit wall.

The NJ-45 Mine will use the present P-10/7 Mine offices, dry and locker facilities, and surface maintenance and repair shops. At the site in the open pit, minimal temporary office and repair shelters will be erected, facilities installed for the dumping and segregation of ore and waste rock, and a sump built for the collection of mine drainage water. Three vent holes will be drilled on open pit benches on surfaces that are already impacted by mining activities.

Electric power will be supplied to the mine by extending a present pwer line in the open pit. Potable water will be trucked to the site. Industrial water for drilling in the mine will be taken from the mine drainage sump. Portable sanitary facilities will be provided.

Upon completion of the NJ-45 Mine project, abandonment methods will be governed by the applicable existing laws and regulations in effect at that time. It is expected that the facilities in the open pit will be dismantled and removed to permit backfilling of the open pit, and the adit portals sealed and covered with backfill material. Vent holes will be plugged.

Measures for Preventing Pollution

The surface water nearest to the NJ-45 Mine project is Paguate Creek, located about one mile southeast of the mine. Surface drainage of runoff from the mine site is captured in the open pit workings and does not reach the Paguate Creek. Mine drainage water from NJ-45 will be impounded in a sump in the bottom of the mined-out open pit workings, and will be used for dust suppression on the NJ-45 access roads and will be used in the mine for drill water, and the excess will be allowed to evaporate. Waste rock from NJ-45 will be disposed of in the open pit as backfill or placed in open pit waste dumps for future reclamation.

Drainage from the NJ-45 underground workings in the Jackpile sandstone is expected to be at a discharge rate of 50 gallons per minute or less, as judged from experience in the open pit workings. The naturally low transmissibility of the Jackpile formation will inhibit significant areal depletion of the aquifer over the short life of the project. It is expected that the aquifer will be naturally restored to equilibrium after the adits are plugged for abandonment, and that the underground mining excavations will not prove to be detrimental to the aquifer.

The air that will be discharged from the vent holes will not be detrimental to the environment. All working places from which discharge air is collected will be controlled in such manner that the deleterious particulate and gaseous concnetrations are kept within the limits of health and safety standards.

Subsidence of the stripped surfaces of the open pit that overly the underground workings is not expected to occur because of the minimal size of the underground excavations.

Proposed Reclamation Activity

Reclamation of the NJ-45 Mine site will consist of plugging the adit entrances and filling the vent holes and such other measures as the existing laws and regulations will dictate at the time of abandonment. These measures as they apply to NJ-45 will be addressed as part of the open pit reclamation operations for which a comprehensive plan is now being formulated by Anaconda in cooperation with the U.S. Geological Survey, the Pueblo of Laguna, and other interested parties.

Ancillary Information

Estimates of the average annual personnel requirements for operation of the NJ-45 Mine are presented in the table below. Support personnel that are shared with P-10 and other mines are prorated.

		1981	1982
Hourly:	Skilled	66	89
	Unskilled	3	5
Salary:	Supervision	4	6
	Technical	8	12
		81	112

If further information is needed to process this submittal, please permit our immediate response by telephoning me or Earl Arlin at at (505)876-2211.

Sincerely,

M. A. Stirland, Manager
Environment, Health & Safety

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Enclosure (1)